

CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

WALTER M. DICKIE, M.D., Director

Weekly Bulletin



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JUL 7 - 1930
University of California

Entered as second-class matter February 21, 1922, at the post office at Sacramento, California, under the Act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917.

Vol. IX, No. 21

June 28, 1930

GUY P. JONES
EDITOR

No Danger in Aluminum Cooking Utensils

Every now and then someone rises to remark that the use of aluminum cooking utensils causes intestinal disturbances and are in other ways detrimental to health. As a matter of fact, however, many scientific investigations have been made in this matter but no evidence whatsoever has been produced that would substantiate the claims of certain individuals relative to any injurious effects upon health that may be caused through use of aluminum utensils.

Dr. John Glaister, Professor of Forensic Medicine and Public Health at the University of Glasgow, conducted a series of experiments which covered a period of about three months in which the greatest of care was exercised in order to secure accuracy. The results of his experiments did not show that any injurious results may be entered through the use of such utensils. The same conclusions were reached by the Referee Board of Consulting Scientific Experts appointed in 1909 by President Roosevelt, and published in the U. S. Department of Agriculture Bulletin No. 103 entitled "Alum In Foods." Similar results were obtained by Dr. Russell H. Chittenden of the Sheffield Scientific School, Yale University. Dr. A. E. Taylor, formerly of the Medical School of Pennsylvania, Philadelphia, and now at Stanford University, California, and Dr. John H. Long of Northwestern University Medical School, Chicago, reached similar conclusions after a long series of experiments.

Many other authorities have investigated this mat-

ter but no evidence has been produced that would confirm the claims that have been made, unsupported by scientific data, by many mistaken individuals.

Most of these experiments covered the cooking of a wide variety of food products in aluminum utensils, followed by attempts to discover aluminum salts in appreciable quantities in such food products. Milk boiled for ten minutes in an aluminum pan was evaporated to dryness, incinerated and tested but no aluminum compounds were found. Oranges and lemons with rinds and pulp chopped up, covered with boiling distilled water were boiled in an aluminum pan for one hour, then evaporated to dryness, incinerated and tested for aluminum. As a result, the amount of aluminum salt so dissolved was extremely small, an amount insufficient to produce illness in any human being. Similar experiments were performed with brussels sprouts, tomato sauce and other food products. Negative results were obtained in all instances.

Dr. Glaister stated that he was perfectly justified in saying that the use of aluminum cooking utensils for culinary purposes is not attended by any risk for the consumer of the food cooked in such utensils.

With reference to the investigation carried on by the Referee Board of Consulting Scientific Experts, the study was made with human beings as subjects. Consequently, the results were based on experimentation and not on mere opinion. The same pertains to the experiments conducted by Dr. Taylor, Dr. Chit-

tenden and Dr. Long. In each case tests were made upon healthy young men by including aluminum in some of their food. The food was all carefully measured and weighed and the amounts of principal ingredients were determined by analysis. The excretion of the men's bodies were carefully collected, examined and analyzed. Daily records of body weight, temperature, respiration and pulse were kept for each man and notes were made of any unusual symptoms. Any disturbances in health or physiological processes were thus detected. Each experiment included three periods, in the first and last of which no aluminum was administered. During the middle period, aluminum compounds were administered, the doses increasing in amount as the experiment progressed. In this way the effect of large quantities was compared to that of small quantities. In some of these experiments some of the men who served as "control" subjects received no aluminum at any time, so that any disturbances due to other causes might be noted. Dr. Chittenden concluded from his experiments that small quantities of aluminum compounds and even comparatively large quantities when taken daily with the food have no effect on the general health and nutrition of the human body. Dr. Long and Dr. Taylor reached the same conclusions.

Very often when cases of food poisoning occur among a large group of individuals, it is claimed without scientific support that the use of aluminum cooking utensils constitutes the source of such outbreaks. As a matter of fact, however, there is no evidence whatsoever to support this opinion. Investigations into such outbreaks prove that nearly all of them which involve cases of group poisoning are of bacteriological origin, and no evidence has ever been produced to warrant the statement that cooking foods in aluminum dishes constituted the cause of any outbreak of cases of group poisoning which have been investigated by qualified epidemiologists.

We affect to laugh at the folly of those who put faith in nostrums, but are willing to try ourselves whether there is any truth in them.—*Hazlett.*

RESEARCH INTO SEWAGE DISPOSAL METHODS

Through the aid of an allotment, provided recently, for research into better methods of sewage treatment, the Bureau of Sanitary Engineering has been able, during the past month, to engage in a large amount of work of this type. Sewage treatment works in Modesto, Visalia, Los Angeles, Escondido and San Bernardino are being studied for this purpose.

STATUS OF EPIDEMIC POLIOMYELITIS

Since January first, 175 cases of poliomyelitis have been reported, and of that number 127 have occurred since May first.

January	17
February	3
March	12
April	16
May	58
June (1st 2 weeks)	69
Total	175

This increase is one month earlier than occurred in 1927. Those cases reported this year were from the following counties:

Alameda	2
Contra Costa	1
Fresno	2
Imperial	10
Kern	4
Kings	2
Los Angeles	84
Monterey	1
Orange	13
Riverside	11
Sacramento	1
San Bernardino	21
San Diego	9
San Francisco	4
San Luis Obispo	1
San Mateo	2
Sonoma	4
Tehama	1
Tulare	2
Total	175

Even though 84 per cent of the cases have been, so far, in the southern part of the state, this distribution is limited, for the most part, to those counties not invaded to any great extent in the 1927 epidemic. In considering the proportion of these cases to the population in those districts, the incidence does not appear high. It is well to bear in mind, however, that epidemic poliomyelitis is a generalized infection which, in the early stages, may resemble any acute respiratory or intestinal infection. It is during this period of the disease that the infection is most likely to spread. Only a few of the cases terminate in paralysis.

Were it not for the poverty of the soil in defensive essences, the seeds of disease would never grow.—*Leonard Williams.*

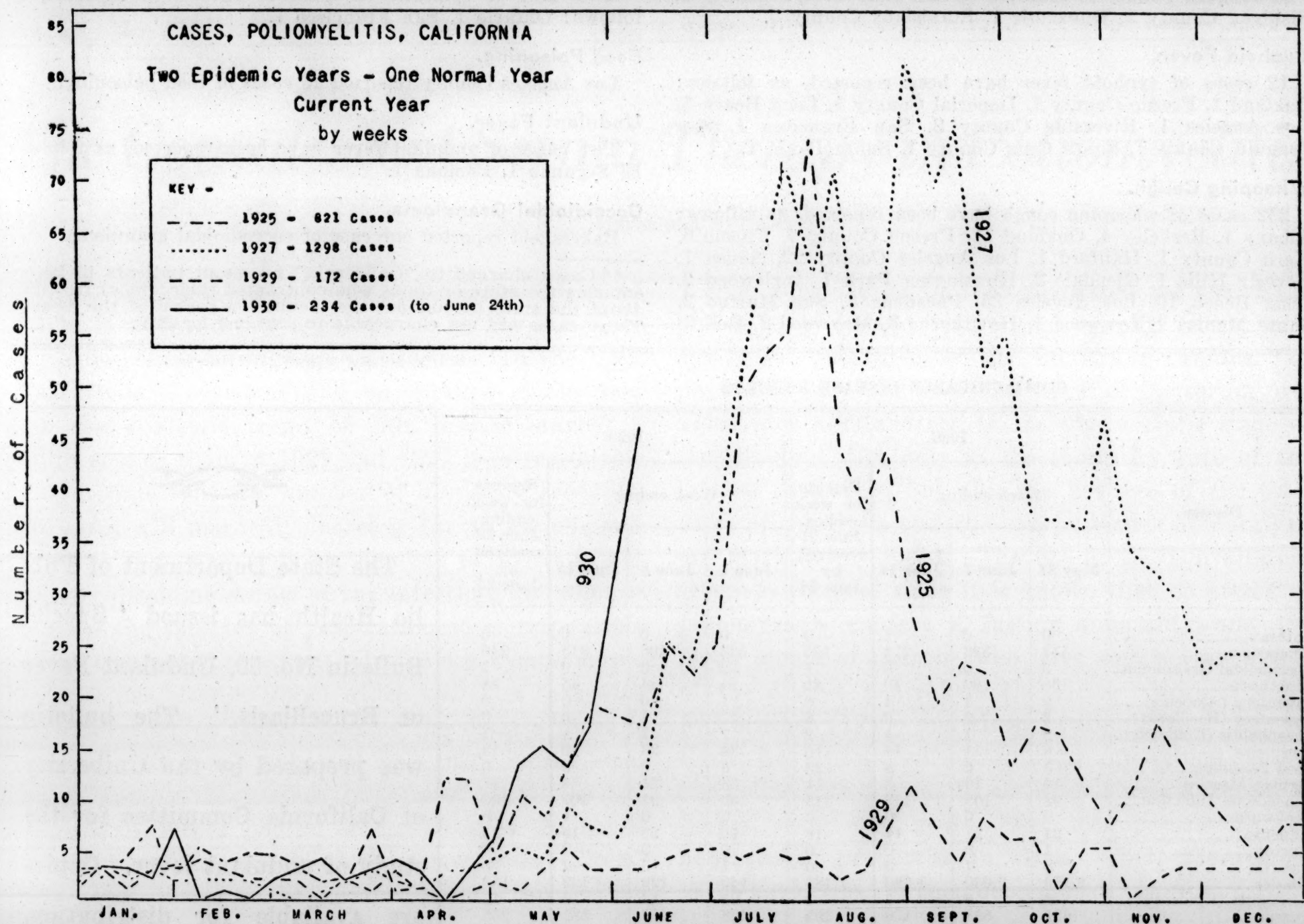
MUSSEL POISONING

The season of the year is approaching when mussels are generally most highly poisonous. Each summer, during the months of July and August, of recent years, large numbers of individuals who gather and eat these shellfish become severely ill. In 1927, 102 such persons, residing in the central part of the state, were taken ill after eating mussels. In July and August of 1929, there were 55 cases of mussel poisoning reported to the State Department of Public Health and 6 cases of poisoning which resulted from the eating of clams. None of these cases resulted from shellfish commercially packed or sold.

Mussel and clam poisoning are due to the presence

of poisons in these shellfish which are probably the result of a metabolism disease which is influenced by spawning conditions and possibly by foods. This poison is not destroyed by heat. It disappears during the winter months but begins to reappear late in March. During the months of July and August, mussels are most highly poisonous. After that time, the decrease in toxicity begins.

Because of the approach of the season when there is potential danger in eating clams and mussels gathered by picnic parties, it seems advisable to warn the general public of the possible danger that may lie in eating mussels and clams at this season of the year.



MORBIDITY*

Diphtheria.

45 cases of diphtheria have been reported, as follows: Oakland 3, Contra Costa County 3, Los Angeles County 2, Alhambra 2, Covina 1, Long Beach 1, Los Angeles 14, Santa Ana 1, Riverside 3, Sacramento 3, San Bernardino County 1, San Francisco 2, Stockton 1, Santa Barbara 1, Santa Clara County 2, San Jose 1, Santa Clara 1, Santa Cruz County 1, Santa Rosa 1, Stanislaus County 1.

Scarlet Fever.

84 cases of scarlet fever have been reported, as follows: Alameda County 1, Pittsburg 1, Fresno County 2, Fresno 2, Bakersfield 1, Los Angeles County 3, Alhambra 2, El Segundo 1, Glendale 5, Long Beach 2, Los Angeles 20, Pasadena 2,

Lynwood 1, Maywood 3, Bell 1, San Rafael 1, Orange County 1, Santa Ana 1, Sacramento 3, Hollister 2, San Bernardino County 1, San Diego 3, San Francisco 8, Lodi 1, Tracy 1, Daly City 1, Santa Clara County 2, Palo Alto 8, Santa Cruz County 1, Yuba City 1, Yolo County 1, Yuba County 1.

Measles.

1186 cases of measles have been reported, as follows: Alameda County 10, Berkeley 25, Oakland 25, San Leandro 4, Calaveras County 1, Contra Costa County 9, Martinez 3, Pinole 1, Pittsburg 3, Fresno County 6, Fresno 14, Kern County 4, Bakersfield 3, Kings County 2, Lemoore 1, Los Angeles County 95, Alhambra 34, Beverly Hills 3, Claremont 2, Compton 8, Culver City 1, El Segundo 1, Glendale 19, Huntington Park 5,

* From reports received on June 23d and 24th for week ending June 21st.

Inglewood 11, La Verne 2, Long Beach 36, Los Angeles 206, Montebello 1, Pasadena 14, Pomona 7, Redondo 1, San Gabriel 8, Santa Monica 24, Whittier 16, Torrance 4, Lynwood 5, Hawthorne 6, South Gate 6, Monterey Park 1, Maywood 7, Bell 16, Madera 2, Mill Valley 1, San Rafael 1, Monterey County 3, Pacific Grove 1, Orange County 20, Anaheim 4, Fullerton 12, Orange 3, Santa Ana 13, La Habra 2, Riverside County 22, Hemet 1, Riverside 40, Sacramento 23, San Bernardino County 4, Ontario 2, Redlands 5, Rialto 1, San Bernardino 3, Upland 7, Coronado 4, San Diego 147, San Francisco 36, San Joaquin County 25, Lodi 6, Stockton 57, Tracy 38, San Luis Obispo County 1, Arroyo Grande 1, San Mateo County 1, Santa Barbara 5, Santa Clara County 3, Palo Alto 3, San Jose 1, Santa Cruz County 3, Watsonville 2, Siskiyou County 1, Sonoma County 1, Stanislaus County 5, Sutter County 1, Tulare County 5, Dinuba 13, Sonora 1, Ventura 4, Woodland 2.

Smallpox.

43 cases of smallpox have been reported, as follows: Oakland 3, Contra Costa County 1, Los Angeles County 3, Los Angeles 8, Santa Monica 2, Torrance 2, Merced 1, Orange County 1, Riverside County 1, Riverside 2, Sacramento 3, San Joaquin County 1, Manteca 6, San Luis Obispo County 1, Siskiyou County 2, Dunsmuir 1, Stanislaus County 5.

Typhoid Fever.

12 cases of typhoid fever have been reported, as follows: Oakland 1, Fresno County 1, Imperial County 1, Long Beach 1, Los Angeles 1, Riverside County 3, San Francisco 1, San Joaquin County 1, Santa Cruz County 1, Santa Paula 1.

Whooping Cough.

232 cases of whooping cough have been reported, as follows: Albany 1, Berkeley 4, Oakland 11, Fresno County 4, Fresno 6, Kern County 1, Hanford 1, Los Angeles County 22, Azusa 1, Beverly Hills 1, Glendale 2, Huntington Park 1, Inglewood 2, Long Beach 16, Los Angeles 25, Pasadena 5, San Marino 2, Santa Monica 4, Lynwood 1, Hawthorne 3, Maywood 2, Bell 3,

Madera 1, Mill Valley 1, Merced County 3, Orange County 5, Anaheim 4, Fullerton 4, Santa Ana 3, Placentia 2, Riverside County 1, Riverside 2, Sacramento 1, San Bernardino 3, Coronado 1, San Diego 52, San Francisco 4, San Joaquin County 7, Stockton 3, San Luis Obispo County 4, Paso Robles 3, Santa Clara County 1, San Jose 1, Santa Clara 1, Dinuba 4, Lindsay 3.

Poliomyelitis.

51 cases of poliomyelitis have been reported, as follows: Alameda County 1, Contra Costa County 1, Reedley 1, Los Angeles County 6, Beverly Hills 1, Long Beach 3, Los Angeles 17, Pasadena 7, San Fernando 1, Maywood 1, Mariposa County 1, Orange County 1, Santa Ana 1, Placentia 1, Riverside County 3, Sacramento 1, San Bernardino County 1, San Bernardino 1, Santa Clara County 1, California 1.**

Meningitis (Epidemic).

4 cases of epidemic meningitis have been reported, as follows: Glendale 1, Los Angeles 1, Sacramento County 1, Ventura 1.

Encephalitis (Epidemic).

Two case of epidemic encephalitis have been reported, as follows: Ontario 1, San Francisco 1.

Food Poisoning.

Los Angeles County reported 23 cases of food poisoning.

Undulant Fever.

Two cases of undulant fever have been reported, as follows: El Segundo 1, Pomona 1.


Coccidioidal Granuloma.

Bakersfield reported one case of coccidioidal granuloma.

** Cases charged to "California" represent patients ill before entering the state or those who contracted their illness traveling about the state throughout the incubation period of the disease. These cases are not chargeable to any one locality.

COMMUNICABLE DISEASE REPORTS

Disease	1930				1929			
	Week ending			Reports for week ending June 21 received by June 24	Week ending			Reports for week ending June 22 received by June 25
	May 31	June 7	June 14		June 1	June 8	June 15	
Anthrax	0	0	1	0	0	0	0	0
Chickenpox	354	323	274	196	438	496	313	246
Coccidioidal Granuloma	0	0	0	1	2	0	0	1
Diphtheria	58	60	49	45	61	44	45	58
Dysentery (Amoebic)	0	1	1	0	1	0	0	0
Dysentery (Bacillary)	2	2	0	8	2	1	5	0
Encephalitis (Epidemic)	2	1	1	2	7	1	1	1
Erysipelas	8	11	14	10	24	23	10	13
Food Poisoning	3	0	8	23	6	0	3	0
German Measles	15	19	8	11	33	24	14	12
Gonococcus Infection	93	168	119	115	56	91	107	102
Hookworm	0	0	0	0	0	0	1	0
Influenza	21	21	14	18	16	25	19	21
Leprosy	1	0	0	0	0	0	0	0
Malaria	0	1	0	0	1	2	2	8
Measles	2,159	2,030	1,580	1,186	140	129	129	152
Meningitis (Epidemic)	5	6	5	4	21	12	10	12
Mumps	621	585	478	305	438	489	382	265
Ophthalmia Neonatorum	1	0	0	0	1	0	1	0
Paratyphoid Fever	0	0	5	3	0	0	0	0
Pellagra	2	0	5	2	1	1	1	0
Pneumonia (Lobar)	35	48	49	42	91	55	29	49
Poliomyelitis	17	33	46	51	3	3	4	4
Rabies (Animal)	9	20	21	24	18	14	16	8
Rocky Mt. Spotted Fever	0	1	0	0	0	3	0	1
Scarlet Fever	117	122	119	84	340	458	345	259
Smallpox	50	49	38	43	47	30	47	24
Syphilis	106	270	163	140	97	118	227	99
Tetanus	0	3	0	2	1	2	0	1
Trachoma	2	4	0	1	0	0	0	4
Trichinosis	2	1	0	0	0	0	0	0
Tuberculosis	264	224	209	228	169	239	182	217
Tularemia	3	2	0	0	0	0	0	0
Typhoid Fever	14	11	26	12	8	9	13	16
Undulant Fever	1	3	6	2	4	1	2	0
Whooping Cough	251	228	221	232	267	252	195	163
Totals	4,216	4,247	3,460	2,790	2,293	2,522	2,103	1,736



The State Department of Public Health has issued "Special Bulletin No. 50, Undulant Fever or Brucellosis." The bulletin was prepared by the University of California Committee for the study of undulant fever. Copies are available for distribution. Health Officers are urged to bring this bulletin to the attention of the physicians of their community.

